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S. 871

To provide for global pathogen surveillance and response.

IN THE SENATE OF THE UNITED STATES

APRIL 10, 2003

Mr. BIDEN (for himself, Mr. LUGAR, Mr. KENNEDY, Mr. HAGEL, Mr. DOMENICI, and Mr. FEINGOLD) introduced the following bill; which was read twice and referred to the Committee on Foreign Relations

A BILL

To provide for global pathogen surveillance and response.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Global Pathogen Sur-
5 veillance Act of 2003”.

6 **SEC. 2. FINDINGS; PURPOSE.**

7 (a) FINDINGS.—Congress makes the following find-
8 ings:

9 (1) Bioterrorism poses a grave national security
10 threat to the United States. The insidious nature of
11 the threat, the likely delayed recognition in the event

1 of an attack, and the underpreparedness of the do-
2 mestic public health infrastructure may produce cat-
3 astrophic consequences following a biological weap-
4 ons attack upon the United States.

5 (2) A contagious pathogen engineered as a bio-
6 logical weapon and developed, tested, produced, or
7 released in another country can quickly spread to
8 the United States. Given the realities of inter-
9 national travel, trade, and migration patterns, a
10 dangerous pathogen released anywhere in the world
11 can spread to United States territory in a matter of
12 days, before any effective quarantine or isolation
13 measures can be implemented.

14 (3) To effectively combat bioterrorism and en-
15 sure that the United States is fully prepared to pre-
16 vent, diagnose, and contain a biological weapons at-
17 tack, measures to strengthen the domestic public
18 health infrastructure and improve domestic surveil-
19 lance and monitoring, while absolutely essential, are
20 not sufficient.

21 (4) The United States should enhance coopera-
22 tion with the World Health Organization, regional
23 health organizations, and individual countries, in-
24 cluding data sharing with appropriate United States
25 departments and agencies, to help detect and quickly

1 contain infectious disease outbreaks or bioterrorism
 2 agents before they can spread.

3 (5) The World Health Organization (WHO) has
 4 done an impressive job in monitoring infectious dis-
 5 ease outbreaks around the world, including the re-
 6 cent emergence of the Severe Acute Respiratory
 7 Syndrome (SARS) epidemic, particularly with the
 8 establishment in April 2000 of the Global Outbreak
 9 Alert and Response network.

10 (6) The capabilities of the World Health Orga-
 11 nization are inherently limited by the quality of the
 12 data and information it receives from member coun-
 13 tries, the narrow range of diseases (plague, cholera,
 14 and yellow fever) upon which its disease surveillance
 15 and monitoring is based, and the consensus process
 16 it uses to add new diseases to the list. Developing
 17 countries in particular often cannot devote the nec-
 18 essary resources to build and maintain public health
 19 infrastructures.

20 (7) In particular, developing countries could
 21 benefit from—

22 (A) better trained public health profes-
 23 sionals and epidemiologists to recognize disease
 24 patterns;

1 (B) appropriate laboratory equipment for
2 diagnosis of pathogens;

3 (C) disease reporting is based on symp-
4 toms and signs (known as “syndrome surveil-
5 lance”), enabling the earliest possible oppor-
6 tunity to conduct an effective response;

7 (D) a narrowing of the existing technology
8 gap in syndrome surveillance capabilities and
9 real-time information dissemination to public
10 health officials; and

11 (E) appropriate communications equip-
12 ment and information technology to efficiently
13 transmit information and data within national
14 and regional health networks, including inex-
15 pensive, Internet-based Geographic Information
16 Systems (GIS) and relevant telephone-based
17 systems for early recognition and diagnosis of
18 diseases.

19 (8) An effective international capability to mon-
20 itor and quickly diagnose infectious disease out-
21 breaks will offer dividends not only in the event of
22 biological weapons development, testing, production,
23 and attack, but also in the more likely cases of natu-
24 rally occurring infectious disease outbreaks that
25 could threaten the United States. Furthermore, a

1 robust surveillance system will serve to deter ter-
2 rorist use of biological weapons, as early detection
3 will help mitigate the intended effects of such malev-
4 olent uses.

5 (b) PURPOSE.—The purposes of this Act are as fol-
6 lows:

7 (1) To enhance the capability and cooperation
8 of the international community, including the World
9 Health Organization and individual countries,
10 through enhanced pathogen surveillance and appro-
11 priate data sharing, to detect, identify, and contain
12 infectious disease outbreaks, whether the cause of
13 those outbreaks is intentional human action or nat-
14 ural in origin.

15 (2) To enhance the training of public health
16 professionals and epidemiologists from eligible devel-
17 oping countries in advanced Internet-based and
18 other electronic syndrome surveillance systems, in
19 addition to traditional epidemiology methods, so that
20 they may better detect, diagnose, and contain infec-
21 tious disease outbreaks, especially those due to
22 pathogens most likely to be used in a biological
23 weapons attack.

24 (3) To provide assistance to developing coun-
25 tries to purchase appropriate public health labora-

1 tory equipment necessary for infectious disease sur-
2 veillance and diagnosis.

3 (4) To provide assistance to developing coun-
4 tries to purchase appropriate communications equip-
5 ment and information technology, including, as ap-
6 propriate, relevant computer equipment, Internet
7 connectivity mechanisms, and telephone-based appli-
8 cations to effectively gather, analyze, and transmit
9 public health information for infectious disease sur-
10 veillance and diagnosis.

11 (5) To make available greater numbers of
12 United States Government public health profes-
13 sionals to international health organizations, re-
14 gional health networks, and United States diplo-
15 matic missions where appropriate.

16 (6) To establish “lab-to-lab” cooperative rela-
17 tionships between United States public health lab-
18 oratories and established foreign counterparts.

19 (7) To expand the training and outreach activi-
20 ties of overseas United States laboratories, including
21 Centers for Disease Control and Prevention and De-
22 partment of Defense entities, to enhance the disease
23 surveillance capabilities of developing countries.

1 (8) To provide appropriate technical assistance
2 to existing regional health networks and, where ap-
3 propriate, seed money for new regional networks.

4 **SEC. 3. DEFINITIONS.**

5 In this Act:

6 (1) ELIGIBLE DEVELOPING COUNTRY.—The
7 term “eligible developing country” means any devel-
8 oping country that—

9 (A) has agreed to the objective of fully
10 complying with requirements of the World
11 Health Organization on reporting public health
12 information on outbreaks of infectious diseases;

13 (B) has not been determined by the Sec-
14 retary, for purposes of section 40 of the Arms
15 Export Control Act (22 U.S.C. 2780), section
16 620A of the Foreign Assistance Act of 1961
17 (22 U.S.C. 2371), or section 6(j) of the Export
18 Administration Act of 1979 (50 U.S.C. App.
19 2405), to have repeatedly provided support for
20 acts of international terrorism, unless the Sec-
21 retary exercises a waiver certifying that it is in
22 the national interest of the United States to
23 provide assistance under the provisions of this
24 Act; and

1 (C) is a state party to the Biological
2 Weapons Convention.

3 (2) ELIGIBLE NATIONAL.—The term “eligible
4 national” means any citizen or national of an eligible
5 developing country who is eligible to receive a visa
6 under the provisions of the Immigration and Nation-
7 ality Act (8 U.S.C. 1101 et seq.).

8 (3) INTERNATIONAL HEALTH ORGANIZATION.—
9 The term “international health organization” in-
10 cludes the World Health Organization and the Pan
11 American Health Organization.

12 (4) LABORATORY.—The term “laboratory”
13 means a facility for the biological, microbiological,
14 serological, chemical, immuno-hematological,
15 hematological, biophysical, cytological, pathological,
16 or other examination of materials derived from the
17 human body for the purpose of providing informa-
18 tion for the diagnosis, prevention, or treatment of
19 any disease or impairment of, or the assessment of
20 the health of, human beings.

21 (5) SECRETARY.—Unless otherwise provided,
22 the term “Secretary” means the Secretary of State.

23 (6) SELECT AGENT.—The term “select agent”
24 has the meaning given such term for purposes of

1 section 72.6 of title 42, Code of Federal Regula-
2 tions.

3 (7) SYNDROME SURVEILLANCE.—The term
4 “syndrome surveillance” means the recording of
5 symptoms (patient complaints) and signs (derived
6 from physical examination) combined with simple ge-
7 ographic locators to track the emergence of a disease
8 in a population.

9 **SEC. 4. PRIORITY FOR CERTAIN COUNTRIES.**

10 Priority in the provision of United States assistance
11 for eligible developing countries under all the provisions
12 of this Act shall be given to those countries that permit
13 personnel from the World Health Organization and the
14 Centers for Disease Control and Prevention to investigate
15 outbreaks of infectious diseases on their territories, pro-
16 vide early notification of disease outbreaks, and provide
17 pathogen surveillance data to appropriate United States
18 departments and agencies in addition to international
19 health organizations.

20 **SEC. 5. RESTRICTION.**

21 Notwithstanding any other provision of this Act, no
22 foreign nationals participating in programs authorized
23 under this Act shall have access, during the course of such
24 participation, to select agents that may be used as, or in,

1 a biological weapon, except in a supervised and controlled
 2 setting.

3 **SEC. 6. FELLOWSHIP PROGRAM.**

4 (a) ESTABLISHMENT.—There is established a fellow-
 5 ship program (in this section referred to as the “pro-
 6 gram”) under which the Secretary, in consultation with
 7 the Secretary of Health and Human Services, and, subject
 8 to the availability of appropriations, award fellowships to
 9 eligible nationals to pursue public health education or
 10 training, as follows:

11 (1) MASTER OF PUBLIC HEALTH DEGREE.—
 12 Graduate courses of study leading to a master of
 13 public health degree with a concentration in epidemi-
 14 ology from an institution of higher education in the
 15 United States with a Center for Public Health Pre-
 16 paredness, as determined by the Centers for Disease
 17 Control and Prevention.

18 (2) ADVANCED PUBLIC HEALTH EPIDEMIOLOGY
 19 TRAINING.—Advanced public health training in epi-
 20 demiology to be carried out at the Centers for Dis-
 21 ease Control and Prevention (or equivalent State fa-
 22 cility), or other Federal facility (excluding the De-
 23 partment of Defense or United States National Lab-
 24 oratories), for a period of not less than 6 months or
 25 more than 12 months.

1 (b) SPECIALIZATION IN BIOTERRORISM.—In addition
2 to the education or training specified in subsection (a),
3 each recipient of a fellowship under this section (in this
4 section referred to as a “fellow”) may take courses of
5 study at the Centers for Disease Control and Prevention
6 or at an equivalent facility on diagnosis and containment
7 of likely bioterrorism agents.

8 (c) FELLOWSHIP AGREEMENT.—

9 (1) IN GENERAL.—In awarding a fellowship
10 under the program, the Secretary, in consultation
11 with the Secretary of Health and Human Services,
12 shall require the recipient to enter into an agree-
13 ment under which, in exchange for such assistance,
14 the recipient—

15 (A) will maintain satisfactory academic
16 progress (as determined in accordance with reg-
17 ulations issued by the Secretary and confirmed
18 in regularly scheduled updates to the Secretary
19 from the institution providing the education or
20 training on the progress of the recipient’s edu-
21 cation or training);

22 (B) will, upon completion of such edu-
23 cation or training, return to the recipient’s
24 country of nationality or last habitual residence
25 (so long as it is an eligible developing country)

1 and complete at least four years of employment
2 in a public health position in the government or
3 a nongovernmental, not-for-profit entity in that
4 country or, with the approval of the Secretary
5 in an international health organization; and

6 (C) agrees that, if the recipient is unable
7 to meet the requirements described in subpara-
8 graph (A) or (B), the recipient will reimburse
9 the United States for the value of the assist-
10 ance provided to the recipient under the fellow-
11 ship, together with interest at a rate deter-
12 mined in accordance with regulations issued by
13 the Secretary but not higher than the rate gen-
14 erally applied in connection with other Federal
15 loans.

16 (2) WAIVERS.—The Secretary may waive the
17 application of paragraphs (1)(B) and (1)(C) if the
18 Secretary determines that it is in the national inter-
19 est of the United States to do so.

20 (d) IMPLEMENTATION.—The Secretary, in consulta-
21 tion with the Secretary of Health and Human Services,
22 is authorized to enter into an agreement with any eligible
23 developing country under which the country agrees—

1 (1) to establish a procedure for the nomination
 2 of eligible nationals for fellowships under this sec-
 3 tion;

4 (2) to guarantee that a fellow will be offered a
 5 professional public health position within the country
 6 upon completion of his studies; and

7 (3) to certify to the Secretary when a fellow has
 8 concluded the minimum period of employment in a
 9 public health position required by the fellowship
 10 agreement, with an explanation of how the require-
 11 ment was met.

12 (e) PARTICIPATION OF UNITED STATES CITIZENS.—
 13 On a case-by-case basis, the Secretary may provide for the
 14 participation of United States citizens under the provi-
 15 sions of this section if the Secretary determines that it
 16 is in the national interest of the United States to do so.
 17 Upon completion of such education or training, a United
 18 States recipient shall complete at least five years of em-
 19 ployment in a public health position in an eligible devel-
 20 oping country or the World Health Organization.

21 **SEC. 7. IN-COUNTRY TRAINING IN LABORATORY TECH-**
 22 **NIQUES AND SYNDROME SURVEILLANCE.**

23 (a) IN GENERAL.—In conjunction with the Centers
 24 for Disease Control and Prevention and the Department
 25 of Defense, the Secretary shall, subject to the availability

1 of appropriations, support short training courses in-coun-
2 try (not in the United States) to laboratory technicians
3 and other public health personnel from eligible developing
4 countries in laboratory techniques relating to the identi-
5 fication, diagnosis, and tracking of pathogens responsible
6 for possible infectious disease outbreaks. Training under
7 this section may be conducted in overseas facilities of the
8 Centers for Disease Control and Prevention or in Overseas
9 Medical Research Units of the Department of Defense, as
10 appropriate. The Secretary shall coordinate such training
11 courses, where appropriate, with the existing programs
12 and activities of the World Health Organization.

13 (b) TRAINING IN SYNDROME SURVEILLANCE.—In
14 conjunction with the Centers for Disease Control and Pre-
15 vention and the Department of Defense, the Secretary
16 shall, subject to the availability of appropriations, estab-
17 lish and support short training courses in-country (not in
18 the United States) for public health personnel from eligi-
19 ble developing countries in techniques of syndrome surveil-
20 lance reporting and rapid analysis of syndrome informa-
21 tion using Geographic Information System (GIS) and
22 other Internet-based tools. Training under this subsection
23 may be conducted via the Internet or in appropriate facili-
24 ties as determined by the Secretary. The Secretary shall
25 coordinate such training courses, where appropriate, with

1 the existing programs and activities of the World Health
2 Organization.

3 **SEC. 8. ASSISTANCE FOR THE PURCHASE AND MAINTENANCE OF PUBLIC HEALTH LABORATORY**
4 **EQUIPMENT.**
5

6 (a) AUTHORIZATION.—The President is authorized,
7 on such terms and conditions as the President may deter-
8 mine, to furnish assistance to eligible developing countries
9 to purchase and maintain public health laboratory equip-
10 ment described in subsection (b).

11 (b) EQUIPMENT COVERED.—Equipment described in
12 this subsection is equipment that is—

13 (1) appropriate, where possible, for use in the
14 intended geographic area;

15 (2) necessary to collect, analyze, and identify
16 expeditiously a broad array of pathogens, including
17 mutant strains, which may cause disease outbreaks
18 or may be used as a biological weapon;

19 (3) compatible with general standards set forth,
20 as appropriate, by the World Health Organization
21 and the Centers for Disease Control and Prevention,
22 to ensure interoperability with regional and inter-
23 national public health networks; and

1 (4) not defense articles or defense services as
2 those terms are defined under section 47 of the
3 Arms Export Control Act.

4 (c) RULE OF CONSTRUCTION.—Nothing in this sec-
5 tion shall be construed to exempt the exporting of goods
6 and technology from compliance with applicable provisions
7 of the Export Administration Act of 1979 (or successor
8 statutes).

9 (d) LIMITATION.—Amounts appropriated to carry
10 out this section shall not be made available for the pur-
11 chase from a foreign country of equipment that, if made
12 in the United States, would be subject to the Arms Export
13 Control Act or likely be barred or subject to special condi-
14 tions under the Export Administration Act of 1979 (or
15 successor statutes).

16 (e) HOST COUNTRY’S COMMITMENTS.—The assist-
17 ance provided under this section shall be contingent upon
18 the host country’s commitment to provide the resources,
19 infrastructure, and other assets required to house, main-
20 tain, support, secure, and maximize use of this equipment
21 and appropriate technical personnel.

22 **SEC. 9. ASSISTANCE FOR IMPROVED COMMUNICATION OF**
23 **PUBLIC HEALTH INFORMATION.**

24 (a) ASSISTANCE FOR PURCHASE OF COMMUNICATION
25 EQUIPMENT AND INFORMATION TECHNOLOGY.—The

1 President is authorized to provide, on such terms and con-
2 ditions as the President may determine, assistance to eligi-
3 ble developing countries for the purchase and maintenance
4 of communications equipment and information technology
5 described in subsection (b), and supporting equipment,
6 necessary to effectively collect, analyze, and transmit pub-
7 lic health information.

8 (b) COVERED EQUIPMENT.—Equipment (and infor-
9 mation technology) described in this subsection is equip-
10 ment that—

11 (1) is suitable for use under the particular con-
12 ditions of the area of intended use;

13 (2) meets appropriate World Health Organiza-
14 tion standards to ensure interoperability with like
15 equipment of other countries and international
16 health organizations; and

17 (3) is not defense articles or defense services as
18 those terms are defined under section 47 of the
19 Arms Export Control Act.

20 (c) RULE OF CONSTRUCTION.—Nothing in this sec-
21 tion shall be construed to exempt the exporting of goods
22 and technology from compliance with applicable provisions
23 of the Export Administration Act of 1979 (or successor
24 statutes).

1 (d) LIMITATION.—Amounts appropriated to carry
2 out this section shall not be made available for the pur-
3 chase from a foreign country of equipment that, if made
4 in the United States, would be subject to the Arms Export
5 Control Act or likely be barred or subject to special condi-
6 tions under the Export Administration Act of 1979 (or
7 successor statutes).

8 (e) ASSISTANCE FOR STANDARDIZATION OF REPORT-
9 ING.—The President is authorized to provide, on such
10 terms and conditions as the President may determine,
11 technical assistance and grant assistance to international
12 health organizations to facilitate standardization in the re-
13 porting of public health information between and among
14 developing countries and international health organiza-
15 tions.

16 (f) HOST COUNTRY’S COMMITMENTS.—The assist-
17 ance provided under this section shall be contingent upon
18 the host country’s commitment to provide the resources,
19 infrastructure, and other assets required to house, sup-
20 port, maintain, secure, and maximize use of this equip-
21 ment and appropriate technical personnel.

1 **SEC. 10. ASSIGNMENT OF PUBLIC HEALTH PERSONNEL TO**
 2 **UNITED STATES MISSIONS AND INTER-**
 3 **NATIONAL ORGANIZATIONS.**

4 (a) IN GENERAL.—Upon the request of a United
 5 States chief of diplomatic mission or an international
 6 health organization, and with the concurrence of the Sec-
 7 retary of State, the head of a Federal agency may assign
 8 to the respective United States mission or organization
 9 any officer or employee of the agency occupying a public
 10 health position within the agency for the purpose of en-
 11 hancing disease and pathogen surveillance efforts in devel-
 12 oping countries.

13 (b) REIMBURSEMENT.—The costs incurred by a Fed-
 14 eral agency by reason of the detail of personnel under sub-
 15 section (a) may be reimbursed to that agency out of the
 16 applicable appropriations account of the Department of
 17 State if the Secretary determines that the relevant agency
 18 may otherwise be unable to assign such personnel on a
 19 non-reimbursable basis.

20 **SEC. 11. EXPANSION OF CERTAIN UNITED STATES GOVERN-**
 21 **MENT LABORATORIES ABROAD.**

22 (a) IN GENERAL.—Subject to the availability of ap-
 23 propriations, the Centers for Disease Control and Preven-
 24 tion and the Department of Defense shall each—

25 (1) increase the number of personnel assigned
 26 to laboratories of the Centers or the Department, as

1 appropriate, located in eligible developing countries
2 that conduct research and other activities with re-
3 spect to infectious diseases; and

4 (2) expand the operations of those laboratories,
5 especially with respect to the implementation of on-
6 site training of foreign nationals and regional out-
7 reach efforts involving neighboring countries.

8 (b) COOPERATION AND COORDINATION BETWEEN
9 LABORATORIES.—Subsection (a) shall be carried out in
10 such a manner as to foster cooperation and avoid dupli-
11 cation between and among laboratories.

12 (c) RELATION TO CORE MISSIONS AND SECURITY.—
13 The expansion of the operations of overseas laboratories
14 of the Centers or the Department under this section shall
15 not—

16 (1) detract from the established core missions
17 of the laboratories; or

18 (2) compromise the security of those labora-
19 tories, as well as their research, equipment, exper-
20 tise, and materials.

1 **SEC. 12. ASSISTANCE FOR REGIONAL HEALTH NETWORKS**
2 **AND EXPANSION OF FOREIGN EPIDEMI-**
3 **LOGY TRAINING PROGRAMS.**

4 (a) **AUTHORITY.**—The President is authorized, on
5 such terms and conditions as the President may deter-
6 mine, to provide assistance for the purposes of—

7 (1) enhancing the surveillance and reporting ca-
8 pabilities for the World Health Organization and ex-
9 isting regional health networks; and

10 (2) developing new regional health networks.

11 (b) **EXPANSION OF FOREIGN EPIDEMIOLOGY TRAIN-**
12 **ING PROGRAMS.**—The Secretary of Health and Human
13 Services is authorized to establish new country or regional
14 Foreign Epidemiology Training Programs in eligible devel-
15 oping countries.

16 **SEC. 13. AUTHORIZATION OF APPROPRIATIONS.**

17 (a) **AUTHORIZATION OF APPROPRIATIONS.**—

18 (1) **IN GENERAL.**—Subject to subsection (c),
19 there are authorized to be appropriated \$70,000,000
20 for the fiscal year 2004 and \$80,000,000 for fiscal
21 year 2005, to carry out this Act.

22 (2) **ALLOCATION OF FUNDS.**—Of the amounts
23 made available under paragraph (1)—

24 (A) \$50,000,000 for the fiscal year 2004
25 and \$50,000,000 for the fiscal year 2005 are

1 authorized to be available to carry out sections
2 6, 7, 8, and 9;

3 (B) \$2,000,000 for the fiscal year 2004
4 and \$2,000,000 for the fiscal year 2005 are au-
5 thorized to be available to carry out section 10;

6 (C) \$8,000,000 for the fiscal year 2004
7 and \$18,000,000 for the fiscal year 2005 are
8 authorized to be available to carry out section
9 11; and

10 (D) \$10,000,000 for the fiscal year 2004
11 and \$10,000,000 for the fiscal year 2005 are
12 authorized to be available to carry out section
13 12.

14 (b) AVAILABILITY OF FUNDS.—The amount appro-
15 priated pursuant to subsection (a) is authorized to remain
16 available until expended.

17 (c) REPORTING REQUIREMENT.—

18 (1) REPORT.—Not later than 90 days after the
19 date of enactment of this Act, the Secretary shall
20 submit a report, in conjunction with the Secretary of
21 Health and Human Services and the Secretary of
22 Defense, containing—

23 (A) a description of the implementation of
24 programs under this Act; and

1 (B) an estimate of the level of funding re-
2 quired to carry out those programs at a suffi-
3 cient level.

4 (2) LIMITATION ON OBLIGATION OF FUNDS.—
5 Not more than 10 percent of the amount appro-
6 priated pursuant to subsection (a) may be obligated
7 before the date on which a report is submitted, or
8 required to be submitted, whichever first occurs,
9 under paragraph (1).

○